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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 50594
	:	
David CHALLENGER et al.	:	Confirmation Number: 2667
	:	
Application No.: 10/827,165	:	Group Art Unit: 2136
	:	
Filed: April 16, 2004	:	Examiner: P. Parthasarathy
	:	
For: AUTOMATIC VIRUS FIX	:	

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed December 8, 2008, wherein Appellants appeal from the Examiner's rejection of claims 1-7 and 20-33.

**I. REAL PARTY IN INTEREST**

This application is assigned to IBM Corporation by assignment recorded on June 18, 2004, at Reel 014756, Frame 0207.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any related appeals and interferences.

## **III. STATUS OF CLAIMS**

Claims 1-33 are pending and three-times rejected in this Application. It is from the multiple rejections of claims 1-17 and 20-33 that this Appeal is taken.

## **IV. STATUS OF AMENDMENTS**

Accompanying this Appeal Brief is an Amendment in which claims 18 and 19 have been cancelled and a Terminal Disclaimer with regard to U.S. Patent No. 7,353,428. Since entry of both the Amendment and the Terminal Disclaimer would reduce the number of issues on appeal, Appellants proceed on this basis that the Amendment and Terminal Disclaimer will be entered.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

1 Referring to Figures 4A, 6A and also to independent claim 1, a method is  
2 disclosed. A network interface of a client computer is configured to communicate  
3 only with a fix server that can supply a software fix to the client computer (lines 6-8  
4 of paragraph [0061]). In 408, the software fix is received and the client computer  
5 communicates only with the fix server in 406 (lines 1-5 of paragraph [0042]) when a

1 determination is made that the client computer has not previously received the  
2 software fix. (lines 7-9 of paragraph [0041]; lines 6-10 of paragraph [0048]).

3 Referring to Figure 9 and also to independent claim 10, a client computer is  
4 disclosed. The client computer comprises a fix detector 902, an isolator 904, a  
5 downloader 906, and a boot strap 908. The fix detector 902 discerns an offer for a  
6 software fix from a fix server (lines 4-5 of paragraph [0061]). The isolator 904 is  
7 operatively coupled to the fix detector 902, and controls a network interface 240 to  
8 only communicate with the fix server upon a receipt of the offered software fix ((lines  
9 6-8 of paragraph [0061]). The downloader 906 is operatively coupled to the isolator  
10 904 and transfers the software fix from the fix server (lines 9-10 of paragraph [0061]).  
11 The boot strap 908 is operatively coupled to the downloader 906 and reboots the client  
12 computer after the software fix has been downloaded and executed (lines 11-12 of  
13 paragraph [0061]). The client computer is reconnected to a network without  
14 restrictions after the software fix is loaded and executed in the client computer (lines  
15 13-14 of paragraph [0061]).

16 Referring to Figures 4A, 6A, 7A and also to independent claim 20, a method is  
17 disclosed. A network interface of a client computer is configured to communicate  
18 only with a fix server that can supply a software fix to the client computer (lines 6-8  
19 of paragraph [0061]). In 408, the software fix is received and the client computer  
20 communicates only with the fix server in 406 (lines 1-5 of paragraph [0042]) when a  
21 determination is made that the client computer has not previously received the

1 software fix. (lines 7-9 of paragraph [0041]; lines 6-10 of paragraph [0048]). The  
2 configuration and the reception are performed by a virtual machine manager in the  
3 client computer (lines 1-12 of paragraph [0053]).

4 Referring to Figures 2 and 7A and also to independent claim 26 an apparatus  
5 102 is disclosed. The apparatus 102 comprises a memory 212 (lines 4-5 of paragraph  
6 [0032]), a network interface 240 (lines 1-3 of paragraph [0035]), and a processor 202  
7 (line 2 of paragraph [0032]). The processor 202 is coupled to the memory 212 and the  
8 network interface 240 (lines 2-3 of paragraph [0032]) and is effective when executing  
9 code stored in the memory 212 to establish a virtual machine manager 238 which  
10 virtualizes the hardware interface of at least the network interface 240 (lines 1-9 of  
11 paragraph [0036]).

12 A network interface of a client computer is configured, in 708, by the virtual  
13 machine manager 238, to communicate only with a fix server that can supply a  
14 software fix to the client computer (lines 7-9 of paragraph [0053]). In 715, the  
15 software fix is received, by the virtual machine manager 238 (lines 1-2 of paragraph  
16 [0054]), and in 706 the client computer communicates only with the fix server (lines  
17 7-8 of paragraph [0054]) when a determination is made, 704, that the client computer  
18 has not previously received the software fix. (lines 3-7 of paragraph [0053]).

19 Referring to Figures 2 and 7A and also to independent claim 31 an apparatus  
20 102 is disclosed. The apparatus 102 comprises a memory 212 (lines 4-5 of paragraph  
21 [0032]), a network interface 240 (lines 1-3 of paragraph [0035]), and a processor 202

(line 2 of paragraph [0032]). The processor 202 is coupled to the memory 212 and the network interface 240 (lines 2-3 of paragraph [0032]) and is effective to establish a virtual machine manager 238 which virtualizes the hardware interface of at least the network interface 240 (lines 1-9 of paragraph [0036]). The virtual machine manager 238 established by the processor 202 is effective in performing the following steps.

In 708, the network interface is configured to communicate only with a fix server that can supply a software fix by applying a filter to software associated with the network interface (lines 7-15 of paragraph [0053]. In 715, the software fix is received from the fix server (lines 1-2 of paragraph [0054]). In 704/708, communication only occurs with the fix server when a determination is made that a software fix has not been previously received (lines 3-7 of paragraph [0053]). In 710, a virtual machine instance is initiated wherein the software fix is executed by the virtual machine instance in response to the reception of the software fix from the fix server (lines 15-16 of paragraph [0053]). In 718, the client computer is re-booted after installing the software fix (lines 4-5 of paragraph [0054]). In 722, the client computer is reconnected to a network in a full access mode (lines 6-7 of paragraph [0054]).

Referring to Figures 4A, 6A and also to independent claim 33, a product is disclosed. The product comprises a computer usable medium having computer readable program code stored therein. The computer readable program code in the product being effective to perform the following method. A network interface of a client computer is configured to communicate only with a fix server that can supply a

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1 software fix to the client computer (lines 6-8 of paragraph [0061]). In 408, the  
2 software fix is received and the client computer communicates only with the fix server  
3 in 406 (lines 1-5 of paragraph [0042]) when a determination is made that the client  
4 computer has not previously received the software fix. (lines 7-9 of paragraph [0041];  
5 lines 6-10 of paragraph [0048]).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1-8, 10-13, 15-17, and 33 were rejected under 35 U.S.C. § 102 for anticipation based upon Kouznetsov et al., U.S. Patent No. 6,892,241 (hereinafter Kouznetsov); and

2. Claims 9, 14, and 20-32 were rejected under 35 U.S.C. § 103 for obviousness based upon Kouznetsov in view of Ho et al., U.S. Patent No. 7,188,369 (hereinafter Ho).

## **VII. ARGUMENT**

1 Prior to addressing the substance of the Examiner's rejection, note the  
2 following. As is evident from Appellants' previously-presented comments during  
3 prosecution of the present Application and from Appellants' comments below, there  
4 are questions as to how the limitations in the claims correspond to features in the  
5 applied prior art. In this regard, reference is made to M.P.E.P. § 1207.02, entitled  
6 "Contents of Examiner's Answer." Specifically, the following is stated:

7 (A) CONTENT REQUIREMENTS FOR EXAMINER'S  
8 ANSWER. The examiner's answer is required to include, under  
9 appropriate headings, in the order indicated, the following items:

10 ...

11 (9)(e) For each rejection under 35 U.S.C. 102 or 103 where  
12 there are questions as to how limitations in the claims correspond  
13 to features in the prior art even after the examiner complies with  
14 the requirements of paragraphs (c) and (d) of this section, the  
15 examiner must compare at least one of the rejected claims feature  
16 by feature with the prior art relied on in the rejection. The  
17 comparison must align the language of the claim side-by-side with  
18 a reference to the specific page, line number, drawing reference  
19 number, and quotation from the prior art, as appropriate.  
20 (emphasis added)

21  
22 Therefore, if the Examiner is to maintain the present rejection and intends to file an  
23 Examiner's Answer, the Examiner is required to include the aforementioned section in



the Examiner's Answer.

Appellants have compared the statement of the rejection found on pages 4-9 of the Third Office Action with the statement of the rejection found on pages 3-7 of the Second Office Action. Upon making this comparison, Appellants have been unable to discover any substantial differences between the respective statements of the rejection. As such, Appellants proceed on the basis that the Examiner's sole response to the arguments presented in Appellants' Second Response dated June 4, 2008 (hereinafter the Second Response) is found on pages 2 and 3 of the Third Office Action in the section entitled "Response to Arguments."

**THE REJECTION OF CLAIMS 1-8, 10-13, 15-17, AND 33 UNDER 35 U.S.C. § 102 FOR ANTICIPATION BASED UPON KOUZNETSOV**

For convenience of the Honorable Board in addressing the rejections, claims 2-5 and 33 stand or fall together with independent claim 1; claims 6-7, 11-13, 15-17 stand or falls together with claim 10; claim 17 stands or falls together with claim 7; claim 8 stands or falls alone.

The factual determination of anticipation under 35 U.S.C. § 102 requires the identical disclosure, either explicitly or inherently, of each element of a claimed

invention in a single reference.<sup>1</sup> Moreover, the anticipating prior art reference must describe the recited invention with sufficient clarity and detail to establish that the claimed limitations existed in the prior art and that such existence would be recognized by one having ordinary skill in the art.<sup>2</sup>

"Both anticipation under § 102 and obviousness under § 103 are two-step inquiries. The first step in both analyses is a proper construction of the claims. ... The second step in the analyses requires a comparison of the properly construed claim to the prior art."<sup>3</sup> During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification,"<sup>4</sup> and the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach.<sup>5</sup> Therefore, the Examiner must (i) identify the individual elements of the claims and properly construe these individual elements,<sup>6</sup> and (ii) identify corresponding elements disclosed in the allegedly anticipating reference and compare these allegedly corresponding elements to the individual

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<sup>1</sup> In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 894, 221 USPQ 669, 673 (Fed. Cir. 1984).

<sup>2</sup> See In re Spada, 911 F.2d 705, 708, 15 USPQ 1655, 1657 (Fed. Cir. 1990); Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 678, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

<sup>3</sup> Medichem, S.A. v. Rolabo, S.L., 353 F.3d 928, 933 (Fed. Cir. 2003) (internal citations omitted).

<sup>4</sup> In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

<sup>5</sup> In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

<sup>6</sup> See also, Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1567-68 (Fed. Cir. 1987) (In making a patentability determination, analysis must begin with the question, "what is the invention claimed?" since "[c]laim interpretation, . . . will normally control the remainder of the decisional process"); see Gechter v. Davidson, 116 F.3d 1454, 1460 (Fed. Cir. 1997) (requiring explicit claim construction as to any terms in dispute).

elements of the claims.<sup>7</sup> This burden has not been met. In this regard, the Examiner's rejection under 35 U.S.C. § 102 also fails to comply with 37 C.F.R. § 1.104(c).<sup>8</sup>

Claims 1, 10, 20, 26, 31, and 33

Regarding these claims, the Examiner merely cited column 2, lines 15-54 of Kouznetsov. The Examiner also reproduced portions of Kouznetsov corresponding to column 2, lines 27-32 and 49-52. Upon reviewing the Examiner's cited passages, Appellants are unclear as to how Kouznetsov identically discloses all of the claimed limitations. Based upon the Examiner's cited passages, Kouznetsov teaches the unremarkable concept of a client computer 117 having anti-virus software 121 running thereon that loads a virus signature update from a database 122 of a server 114. These teachings, however, do not differ significantly that what was described by Appellants in paragraph [0008] of the "Background of the Invention" section of Appellants' disclosure.

---

<sup>7</sup> Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

<sup>8</sup> 37 C.F.R. § 1.104(c) provides:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Absent from the Examiner's analysis and from the teachings of Kouznetsov, however, are teachings as to the claim language regarding the configuring of the network interface of the client computer and the client computer communicating only with the fix server. Since the Examiner has failed to establish that Kouznetsov identically discloses these limitations, the Examiner has failed to establish that Kouznetsov is anticipatory prior art within the meaning of 35 U.S.C. § 102.

The above arguments (incorporated herein) were previously presented on page 3, lines 3-18 of the Second Response. In response to the above arguments, the Examiner asserted the following on page 2 of the Third Office Action:

With respect to prior art rejection, Applicant primarily argues that instant claim limitation "fix server" is not taught by Kouznetsov. Examiner respectfully submits that: the cited portion teaches updating virus signature file by the server (coupled to a database equipped with virus signatures/anti-virus policy updates that are distributed to client computers) correspond to the functionalities of "fix server", namely delivering/downloading software fixes such as patches, anti-viruses, etc. (as disclosed in instant specification [0034]). Further, while the elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Note that, in some circumstances, it is permissible to use multiple references in a 35 USC 102 rejection. See MPEP 2131.01.

Kouznetsov further discloses a separate update command for automatic updates of anti-virus scanning software when such update requests are processed. Applicant's arguments amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

At the outset, Appellants note the Examiner has mischaracterized Appellants' arguments. Referring to the arguments previously-presented by Appellants, which are substantially identical to the arguments presented on page 3 of the Second Response, Appellants emphasized the term "only" within the phrase "client computer communicating only with the fix server." Thus, Appellants arguments were not directed towards whether or not Kouznetsov teaches a fix server. Instead, Appellants arguments were directed to how the client computer communicates with the fix server.

On page 3 of the Third Office Action, the Examiner further asserted the following:

A recitation directed to the manner in which a claimed apparatus is intended to be used does not distinguish the claimed apparatus from the prior art if prior art has the capability to do so perform (See MPEP 2114 and Ex Parte Masham, 2 USPQ2d 1647 (1987)). (Underlines omitted)

At the outset, Appellants note that the Examiner's reference to M.P.E.P. § 2114 neither refers to a specific argument made by Appellants nor any specific claim language. Without the Examiner explaining the relevance (i.e., an analysis) of this cited case law to the claims at issue, Appellants cannot directly address the Examiner's analysis.

Notwithstanding the ambiguity as to the relevance of this particular passage, Appellants caution that the Examiner may be reading too much into the case law cited

1 by the Examiner. As discussed in M.P.E.P. § 2173.05(g), [t]here is nothing inherent  
2 wrong with defining some part of an invention in functional terms. For example,  
3 referring to the claimed "the client computer communicates only with the fix server  
4 when a determination is made that the client computer has not previously received the  
5 software fix," elements within the client computer must be configured to perform  
6 these functions.

7  
8 Although a prior art client computer may be capable of performing these  
9 functions/use, the prior art client computer must first be configured to perform these  
10 functions/use. By analogy, a solid block of metal may be capable of performing the  
11 function of (or be used as) an automobile engine . However, the block of metal must  
12 first be configured for this intended use. Thus, the fact that some modification of a  
13 particular prior art reference may render the prior art reference capable of performing  
14 some intended use does not elevate the prior art reference to anticipatory prior art..

15  
16 Claim 8

17 Dependent claim 8 recites "utilizing a service processor in the client computer  
18 to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured  
19 to communicate only with the fix server to receive the software fix." To identically  
20 disclose these limitations, the Examiner cited column 5, line 43 through column 6,  
21 line 53 of Kouznetsov. Appellants review of these cited passages, however, fails to

yield any teaching of "the NIC is configured to communicate only with the fix server to receive the software fix." Thus, the Examiner has failed to establish that Kouznetsov identically discloses the claimed invention, as recited in claim 8, within the meaning of 35 U.S.C. § 102.

Claim 10

Independent claim 10 recites "a boot strap which is operatively coupled to said downloader and which reboots the client computer after the software fix has been downloaded and executed. Claims 6-7 and 30 similarly recite re-booting the client computer. To identically disclose these limitations, the Examiner cited column 5, line 43 through column 6, line 53. However, these cited passages are silent as to rebooting the client computer after the software fix has been downloaded and executed. Thus, the Examiner has failed to establish that Kouznetsov identically discloses the claimed invention, as recited in claim 10, within the meaning of 35 U.S.C. § 102.

**THE REJECTION OF CLAIMS 9, 14, 20-32 UNDER 35 U.S.C. § 102 FOR ANTICIPATION BASED UPON KOUZNETSOV**

For convenience of the Honorable Board in addressing the rejections, claim 9 stands or falls together with independent claim 1; claim 14 stands or falls together with independent claim 10; claims 21-32 stand or fall together with independent claim 21.

1  
2 On October 10, 2007, the Patent Office issued the "Examination Guidelines for  
3 Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court  
4 Decision in KSR International Co. v. Teleflex Inc.," 73 Fed. Reg. 57,526 (2007)  
5 (hereinafter the Examination Guidelines). Section III is entitled "Rationales To  
6 Support Rejections Under 35 U.S.C. 103." Within this section is the following quote  
7 from the Supreme Court: "rejections on obviousness grounds cannot be sustained by  
8 merely conclusory statements; instead there must be some articulated reasoning with  
9 some rational underpinning to support the legal conclusion of obviousness." KSR Int'l  
10 Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting In re Kahn, 441 F.3d 977,  
11 988 (Fed. Cir. 2006)).

12  
13 Referring to the first column on page 57,529 of the Examination Guidelines, the  
14 following is a list of rationales that may be used to support a finding of obviousness  
15 under 35 U.S.C. § 103:

16 (A) Combining prior art elements according to known methods to  
17 yield predictable results;

18 (B) Simple substitution of one known element for another to obtain  
19 predictable results;

20 (C) Use of known technique to improve similar devices (methods,  
21 or products) in the same way;

22 (D) Applying a known technique to a known device (method, or  
23 product) ready for improvement to yield predictable results;



(E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

Upon viewing the Examiner's analysis on pages 7-9 of the Third Office Action, the Examiner appears to be employing rationale (G). If the Examiner is not relying upon rationale (G), Appellants request that the Examiner clearly identify the rationale, as described in the Examination Guidelines, being employed by the Examiner in rejecting the claims under 35 U.S.C. § 103.

Referring again to rationale (G), as discussed on page 57,534 of the Examination Guidelines, the following findings of fact must be articulated by the Examiner:

(1) a finding that there was some teaching, suggestion, or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

(2) a finding that there was reasonable expectation of success; and

(3) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

Referring to the paragraph entitled "Office Personnel as Factfinders" on page 57,527 of the Examination guidelines, the following was stated:

Office personnel fulfill the critical role of factfinder when resolving the *Graham* inquiries. It must be remembered that while the ultimate determination of obviousness is a legal conclusion, the underlying *Graham* inquiries are factual. When making an obviousness rejection, Office personnel must therefore ensure that the written record includes findings of fact concerning the state of the art and the teachings of the references applied. In certain circumstances, it may also be important to include explicit findings as to how a person of ordinary skill would have understood prior art teachings, or what a person of ordinary skill would have known or could have done. Factual findings made by Office personnel are the necessary underpinnings to establish obviousness.

In Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), the Supreme Court set forth the factual inquiries that are to be applied when establishing a background for determining obviousness under 35 U.S.C. 103. These factual inquiries are summarized as follows:

(A) Determine the scope and content of the prior art;

(B) Ascertain the differences between the prior art and the claims at issue;

(C) Resolve the level of ordinary skill in the pertinent art; and

(D) Evaluate any indicia of nonobviousness.

However, in order to make a proper comparison between the claimed invention and the prior art, the language of the claims must first be properly construed. See In re Paulsen, 30 F.3d 1475, 1479 (Fed. Cir. 1994). See also, Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1567-68 (Fed. Cir. 1987) (In making a patentability determination, analysis must begin with the question, "what is the invention claimed?" since "[c]laim interpretation, ... will normally control the remainder of the decisional process.") See Gechter v. Davidson, 116 F.3d 1454, 1460 (Fed. Cir. 1997) (requiring explicit claim construction as to any terms in dispute).

Upon reviewing the Examiner's analysis in view of the requirements discussed above necessary for the Examiner to establish a prima facie case of obviousness, Appellants recognize several deficiencies in the Examiner's analysis.

---

Claim 20

Claims 20 recites the concept that "said configuration and said reception are performed by a virtual machine manager in the client computer" with the

"configuration" referring to the configuration of the network interface to communicate only with a fix server and the "receiving" referring to receiving the software fix from the fix server. On pages 8 and 9 of the Third Office Action, the Examiner asserted the following with regard to the secondary reference of Ho:

Kouznetsov does not explicitly disclose a virtual machine manager which virtualizes the hardware interface. However, Ho discloses "a virtual scanning processor having a plug-in functionalities having a plurality of internal instructions, a computer virus signature database 201 storing a plurality of computer virus signatures" and "The virtual scanning processor 101 is provided at the application program (AP) level 302. The antivirus scanning module can also be provided by other virtual machine at the AP level" (See Ho Column 5 line 25 - Column 6 line 22).

It would have been obvious to one of ordinary skill in the art to combining Kouznetsov with Ho because security and device independence (virtual machine) can run regardless of hardware and software underlying the system, the anti-virus program can be updated, the machine can be re-booted without any disadvantage to the computer/operating system.

At the outset, Appellants note that the Examiner has mischaracterized the differences between the scope and content of Kouznetsov and the claimed limitations recited in claim 20. Kouznetsov fails to teach all of the limitations that Appellants discussed above (i.e., "said configuration and said reception are performed by a virtual machine manager in the client computer").

Turning to the Examiner's analysis, Appellants note that Ho discusses using a virtual scanning processor. However, absent from the teachings of Ho is any of the limitations that Kouznetsov fails to teach. Specifically, Ho does not refer to using a

1 virtual machine manager to configure a network interface to communicate only with a  
2 fix server or receiving the software fix from the fix server. In this regard reference is  
3 made to column 5, lines 39-43 of Ho, which describes the various antivirus  
4 functionalities:

5       The antivirus functionalities can further include heuristic or rule-based scan  
6       functions, encryption functions, computer virus statistics and analysis functions, virus  
7       fix and service functions, or virus trapping functions.

8  
9 Noticeably absent from any of these functionalities are a discussing of using a virtual  
10 machine manager to configure a network interface to communicate only with a fix  
11 server or receiving the software fix from the fix server. Thus, neither Kouznetsov nor  
12 Ho teaches the limitations at issue.

13  
14       As to the Examiner's alleged benefit for the proposed modification, the  
15 Examiner asserts that "security and device independence (virtual machine) can run  
16 regardless of hardware and software underlying the system, the anti-virus program can  
17 be updated, the machine can be re-booted without any disadvantage to the  
18 computer/operating system." The Examiner's analysis presumes, without factual  
19 support, that it would be desirable to update the program and re-boot the computer in a  
20 virtual machine. The only teachings, of record, as to the desirability of these actions  
21 are found in Appellants' disclosure, which cannot properly be relied upon to support the

ultimate legal conclusion of obviousness under 35 U.S.C. § 103. Panduit Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985).

Moreover, referring to the Examination Guidelines discussed above, the Examiner has failed to establish a reasonable expectation of success. Therefore, for the reasons submitted above, the Examiner has failed to establish a prima facie case of obviousness.

#### Conclusion

Based upon the foregoing, Appellant respectfully submits that the Examiner's rejection under 35 U.S.C. §§ 102, 103 based upon the applied prior art is not viable. Appellant, therefore, respectfully solicits the Honorable Board to reverse the Examiner's rejection under 35 U.S.C. §§ 102, 103.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. §§ 1.17, 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 500563, and please credit any excess fees to such deposit account.

Date: December 8, 2008

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CUSTOMER NUMBER 50594

## **VIII. CLAIMS APPENDIX**

1. A method comprising:

configuring a network interface of a client computer to communicate only with a fix server that can supply a software fix to the client computer; and

receiving from the fix server the software fix, wherein the client computer communicates only with the fix server when a determination is made that the client computer has not previously received the software fix.

2. The method of claim 1, wherein the software fix is automatically forced on the client computer to be received and applied on the client computer without a user intervention.

3. The method of claim 2, wherein the software fix is received in a broadcasted packet from the fix server.

4. The method of claim 1, further comprising:

waking up the client computer with a Wake-On-LAN (WOL) signal, the WOL signal being included in a packet from the fix server, the packet from the fix server including the address of the fix server.



5. The method of claim 1, wherein the method is under the control of an agent in the client computer.

6. The method of claim 1, further comprising:

re-booting the client computer after installing the software fix; and  
reconnecting the client computer to a network in a full access mode.

7. The method of claim 1, further comprising:

upon receiving the software fix from the fix server, re-booting the client computer using a secondary operating system in the client computer.

8. The method of claim 1, further comprising:

utilizing a service processor in the client computer to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured to communicate only with the fix server to receive the software fix.

9. The method of claim 1, further comprising:

determining whether the client computer has any of a virtual machine manager, a primary operating system, a secondary operating system, and a service processor, and upon said determination, utilizing the virtual machine manager to control the

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network interface if the client computer has a virtual machine manager, or else utilizing the service processor to control the network interface if the client computer has a service processor, or else utilizing the secondary operating system to control the network interface if the client computer has a secondary operating system, or else utilizing the primary operating system to control the network interface.

10. A client computer comprising:

a fix detector which discerns an offer for a software fix from a fix server;

an isolator which is operatively coupled to said fix detector and which controls a network interface to only communicate with the fix server upon a receipt of the offered software fix;

a downloader which is operatively coupled to said isolator and which transfers the software fix from the fix server; and

a boot strap which is operatively coupled to said downloader and which reboots the client computer after the software fix has been downloaded and executed;

wherein the client computer is reconnected to a network without restrictions after the software fix is loaded and executed in the client computer.

11. The client computer of claim 10, wherein said isolator utilizes a primary operating system.

12. The client computer of claim 10, wherein said isolator utilizes a secondary operating system, wherein upon receipt of the offered software fix, the client computer re-boots using the secondary operating system.

13. The client computer of claim 10, wherein said isolator is a service processor.

14. The client computer of claim 10, further comprising a switch which is operatively coupled to said fix detector and which determines whether the client computer has a capability of controlling the network interface using any of a virtual machine monitor, a primary operating system, a secondary operating system, and a service processor, and upon making the determination, utilizing the virtual machine monitor if available, or else utilizing the service processor if the virtual machine manager is not available, or else utilizing the secondary operating system if the service processor is not available, or else utilizing the primary operating system if the secondary operating system is not available, to control the network interface.

15. The client computer of claim 13, wherein the service processor includes an agent for detecting the offer for the software fix.

16. The client computer of claim 10, wherein said boot strap pre-boots the client computer using a secondary operating system to download and execute the software fix.

17. The client computer of claim 10, wherein the software fix is an anti-virus software program.

18. A fix server comprising:

a network interface for transmitting an offer for a software fix and the software fix; and

a memory for storing a list of client computers, the list including a description of whether each client computer on the list has received the software fix.

19. The fix server of claim 18, wherein the software fix is an anti-virus program.

20. A method comprising:

configuring a network interface of a client computer to communicate only with a fix server that can supply a software fix to the client computer; and

receiving from the fix server the software fix, wherein the client computer communicates only with the fix server when a determination is made that the client computer has not previously received the software fix;

wherein said configuration and said reception are performed by a virtual machine manager in the client computer.

21. The method of claim 20, wherein at least a portion of the virtual machine manager is implemented in hardware.

22. The method of claim 20, further comprising:

upon receiving the software fix from the fix server, executing the software fix directly from the virtual machine manager.

23. The method of claim 20, further comprising:

upon receiving the software fix from the fix server, executing the software fix using a virtual machine in the client computer, wherein the virtual machine is created by the virtual machine manager.

24. The method of claim 20, further comprising:

utilizing the virtual machine manager in the client computer to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured to communicate only with the fix server to receive the software fix.

25. The method of claim 20, further comprising:

re-booting the client computer after installing the software fix; and  
reconnecting the client computer to a network in a full access mode.

26. Apparatus comprising:

a memory;

a network interface; and

a processor which couples said memory and said network interface and is effective when executing code stored in said memory to establish a virtual machine manager which virtualizes the hardware interface of at least said network interface;

wherein the virtual machine manager established by said processor is effective to:

configure said network interface to communicate only with a fix server that can supply a software fix; and

receive from the fix server the software fix, wherein communication only occurs with the fix server when a determination is made that a software fix has not been previously received.

27. Apparatus of claim 26, wherein the software fix is executed directly by the virtual machine manager in response to the reception of the software fix from the fix server.

28. Apparatus of claim 26, wherein the virtual machine manager initiates a virtual machine instance and wherein the software fix is executed by the virtual machine instance in response to the reception of the software fix from the fix server.

29. Apparatus of claim 26, wherein the virtual machine manager is further effective to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured to communicate only with the fix server to receive the software fix.

30. Apparatus of claim 26, wherein the virtual machine manager is further effective to:

re-boot the client computer after installing the software fix; and  
reconnect the client computer to a network in a full access mode.

31. Apparatus comprising:

a memory;

a network interface; and

a processor which couples said memory and said network interface and is effective to establish a virtual machine manager which virtualizes the hardware interface of at least said network interface;

wherein the virtual machine manager established by said processor is effective in executing code stored in said memory to:

configure said network interface to communicate only with a fix server that can supply a software fix by applying a filter to software associated with said network interface;

receive from the fix server the software fix, wherein communication only occurs with the fix server when a determination is made that a software fix has not been previously received;

initiate a virtual machine instance wherein the software fix is executed by the virtual machine instance in response to the reception of the software fix from the fix server;

re-boot the client computer after installing the software fix; and

reconnect the client computer to a network in a full access mode.

32. The method of claim 31 , wherein at least a portion of the virtual machine manager is implemented in hardware.

33. A product comprising:



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a computer usable medium having computer readable program code stored therein, the computer readable program code in said product being effective to:

configure said network interface to communicate only with a fix server that can supply a software fix; and

receive from the fix server the software fix, wherein communication only occurs with the fix server when a determination is made that a software fix has not been previously received.

**IX. EVIDENCE APPENDIX**

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the Examiner has been relied upon by Appellants in this Appeal, and thus no evidence is attached hereto.

**X. RELATED PROCEEDINGS APPENDIX**

Since Appellants are unaware of any related appeals and interferences, no decision rendered by a court or the Board is attached hereto.